

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

Claim 1 (currently amended). ~~A back supporting device for a motor vehicle seat, the motor vehicle seat having~~ comprising:

a driver seat portion disposed at a front portion of the motor vehicle seat [[, and]];

a passenger seat portion disposed immediately behind the driver seat portion, the passenger seat portion having a front end, a rear end, and a width that is reduced gradually from the front end to the rear end [[, said]]; and

a back supporting device comprising:

a pair of hollow left and right sliding rails ~~adapted to be~~ disposed respectively and fixedly on two opposite sides of the passenger seat portion such that said left and right sliding rails extend from the front end of the passenger seat portion to the rear end of the passenger seat portion, said left and right sliding rails being spaced apart from each other by a distance along a transverse direction of the motor vehicle seat, the distance being reduced gradually from the front end of the passenger seat portion to the rear end of the passenger seat portion [[:]],

two slide units, each of which includes a slidable element received movably within a corresponding one of said left and right sliding rails, a connecting member disposed outwardly of the corresponding one of said left and right sliding rails and connected fixedly to said slidable element, and a positioning unit for retaining said slidable element at a selected one of a plurality of positions relative to the corresponding one of said left and right sliding rails [[:]],

two supporting frames having upper ends, and lower ends that are connected respectively and pivotally to said connecting members of said slide units such that said upper ends of said supporting frames can pivot toward and away from each other about the pivotal connection of the lower ends [[:]], and

a back supporting mechanism including a backrest mounted to said supporting frames and ~~adapted to be~~ disposed above the passenger seat portion, and a frame-positioning

device disposed between said backrest and said supporting frames to position said backrest on said supporting frames such that said slidable elements of said slide units are movable respectively and forcibly within said left and right sliding rails.

Claim 2 (currently amended). The ~~back-supporting device~~ motor vehicle seat as claimed in Claim 1, further comprising two locking units for locking said slidable elements respectively and releasably within said left and right sliding rails so as to fix said backrest ~~on the motor vehicle seat~~ with respect to the passenger seat portion.

Claim 3 (currently amended). The ~~back-supporting device~~ motor vehicle seat as claimed in Claim 2, wherein each of said left and right sliding rails is shaped as a rectangular tube, and has an outer sidewall that is formed with a longitudinal slot therethrough, said slidable elements being also shaped as rectangular tubes that are received respectively and fittingly within said left and right sliding rails, each of said slidable elements having an outer sidewall that is formed with a threaded hole therethrough, said locking units being configured respectively as two lock bolts that extend respectively through said longitudinal slots in said left and right sliding rails and that engage respectively said threaded holes in said slidable elements so as to lock said slidable elements respectively and releasably within said left and right sliding rails, whereby, when said lock bolts are loosened, said slidable elements can move within said left and right sliding rails, respectively.

Claim 4 (currently amended). The ~~back-supporting device~~ motor vehicle seat as claimed in Claim 1, wherein each of said left and right sliding rails has a top surface that is formed with a longitudinal row of positioning holes, each of said positioning units including:

a positioning member connected pivotally to a corresponding one of said connecting members of said slide units and having a fixed insert portion; and

a biasing unit for biasing said insert portion of said positioning member to engage a selected one of said positioning holes in the corresponding one of said left and right sliding rails so as to retain a corresponding one of said slidable elements at the selected one of the positions relative to the corresponding one of said left and right sliding rails.

Claim 5 (currently amended). ~~The back-supporting device~~ motor vehicle seat as claimed in Claim 4, wherein each of said positioning members is shaped as a curved rod, and further includes a zigzag rod portion connected pivotally to the corresponding one of said connecting members of said slide units, each of said insert portions of said positioning members being shaped as an L-shaped rod and being connected fixedly to an end of a corresponding one of said zigzag rod portions, each of said biasing units of said positioning units being configured as a coiled tension spring that has two ends which are fastened respectively to the other end of the corresponding one of said zigzag rod portions and the corresponding one of said connecting members of said slide units.

Claim 6 (currently amended). ~~The back-supporting device~~ motor vehicle seat as claimed in Claim 1, wherein said frame-positioning device includes:

- an inverted U-shaped wall mounted fixedly on said backrest and having two parallel rod-supporting wall portions;
- a horizontal rod extending through and connected fixedly to said rod-supporting wall portions of said inverted U-shaped wall, said upper ends of said supporting frames being sleeved movably and rotatably on said horizontal rod between said rod-supporting wall portions of said inverted U-shaped wall; and
- a coiled compression spring sleeved around said horizontal rod between said upper ends of said supporting frames so as to press said upper ends of said supporting frames respectively against said rod-supporting wall portions of said inverted U-shaped wall.

Claim 7 (currently amended). ~~The back-supporting device~~ motor vehicle seat as claimed in Claim 6, wherein each of said upper ends of said supporting frames is C-shaped, and defines a curved groove, said curved grooves in said upper ends being located between said upper ends of said supporting frames, said frame-positioning device further including two pressing elements, each of which is sleeved movably and rotatably around said horizontal rod between said upper end of a respective one of said supporting frames and said coiled compression spring, each of said pressing elements having a semi-spherical outer portion that

engages fittingly said curved groove in said upper end of the respective one of said supporting frames, and a circular tubular inner portion that is formed integrally with said semi-spherical outer portion, said coiled compression spring having two ends that are sleeved respectively around said circular tubular inner portions of said pressing elements and that press respectively against said semi-spherical outer portions of said pressing elements.

Claim 8 (new). A motor vehicle seat, comprising:

a seat portion, the seat portion having a front end, a rear end, and a width that is reduced gradually from the front end to the rear end; and

a back supporting device comprising:

a pair of hollow left and right sliding rails disposed respectively and fixedly on two opposite sides of the seat portion such that said left and right sliding rails extend from the front end of the seat portion to the rear end of the seat portion, said left and right sliding rails being spaced apart from each other by a distance along a transverse direction of the seat portion, the distance being reduced gradually from the front end of the seat portion to the rear end of the seat portion,

two slide units, each of which includes a slidable element received movably within a corresponding one of said left and right sliding rails, a connecting member disposed outwardly of the corresponding one of said left and right sliding rails and connected fixedly to said slidable element, and a positioning unit for retaining said slidable element at a selected one of a plurality of positions relative to the corresponding one of said left and right sliding rails,

two supporting frames having upper ends, and lower ends that are connected respectively and pivotally to said connecting members of said slide units such that said upper ends of said supporting frames can pivot toward and away from each other about the pivotal connection of the lower ends, and

a back supporting mechanism including a backrest mounted to said supporting frames and disposed above the seat portion, and a frame-positioning device disposed between said backrest and said supporting frames to position said backrest on said supporting frames such that said slidable elements of said slide units are movable respectively and forcibly within said left and right sliding rails.

Claim 9 (new). The motor vehicle seat as claimed in Claim 8, further comprising two locking units for locking said slidable elements respectively and releasably within said left and right sliding rails so as to fix said backrest with respect to the seat portion.

Claim 10 (new). The motor vehicle seat as claimed in Claim 9, wherein each of said left and right sliding rails is shaped as a rectangular tube, and has an outer sidewall that is formed with a longitudinal slot therethrough, said slidable elements being also shaped as rectangular tubes that are received respectively and fittingly within said left and right sliding rails, each of said slidable elements having an outer sidewall that is formed with a threaded hole therethrough, said locking units being configured respectively as two lock bolts that extend respectively through said longitudinal slots in said left and right sliding rails and that engage respectively said threaded holes in said slidable elements so as to lock said slidable elements respectively and releasably within said left and right sliding rails, whereby, when said lock bolts are loosened, said slidable elements can move within said left and right sliding rails, respectively.

Claim 11 (new). The motor vehicle seat as claimed in Claim 8, wherein each of said left and right sliding rails has a top surface that is formed with a longitudinal row of positioning holes, each of said positioning units including:

a positioning member connected pivotally to a corresponding one of said connecting members of said slide units and having a fixed insert portion; and

a biasing unit for biasing said insert portion of said positioning member to engage a selected one of said positioning holes in the corresponding one of said left and right sliding rails so as to retain a corresponding one of said slidable elements at the selected one of the positions relative to the corresponding one of said left and right sliding rails.

Claim 12 (new). The motor vehicle seat as claimed in Claim 11, wherein each of said positioning members is shaped as a curved rod, and further includes a zigzag rod portion connected pivotally to the corresponding one of said connecting members of said slide units,

each of said insert portions of said positioning members being shaped as an L-shaped rod and being connected fixedly to an end of a corresponding one of said zigzag rod portions, each of said biasing units of said positioning units being configured as a coiled tension spring that has two ends which are fastened respectively to the other end of the corresponding one of said zigzag rod portions and the corresponding one of said connecting members of said slide units.

Claim 13 (new). The motor vehicle seat as claimed in Claim 8, wherein said frame-positioning device includes:

an inverted U-shaped wall mounted fixedly on said backrest and having two parallel rod-supporting wall portions;

a horizontal rod extending through and connected fixedly to said rod-supporting wall portions of said inverted U-shaped wall, said upper ends of said supporting frames being sleeved movably and rotatably on said horizontal rod between said rod-supporting wall portions of said inverted U-shaped wall; and

a coiled compression spring sleeved around said horizontal rod between said upper ends of said supporting frames so as to press said upper ends of said supporting frames respectively against said rod-supporting wall portions of said inverted U-shaped wall.

Claim 14 (new). The motor vehicle seat as claimed in Claim 13, wherein each of said upper ends of said supporting frames is C-shaped, and defines a curved groove, said curved grooves in said upper ends being located between said upper ends of said supporting frames, said frame-positioning device further including two pressing elements, each of which is sleeved movably and rotatably around said horizontal rod between said upper end of a respective one of said supporting frames and said coiled compression spring, each of said pressing elements having a semi-spherical outer portion that engages fittingly said curved groove in said upper end of the respective one of said supporting frames, and a circular tubular inner portion that is formed integrally with said semi-spherical outer portion, said coiled compression spring having two ends that are sleeved respectively around said circular tubular inner portions of said pressing elements and that press respectively against said semi-spherical outer portions of said pressing elements.